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Supplementary Material

Article Title: Targeting Treatments to Improve Cognitive Function in Mood Disorder: Suggestions From Trials Using Erythropoietin

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Supplementary eTable 1. **Descriptives (all).**

Variable	Unit	Normal baseline memory (n=51)	Baseline memory dysfunction (n=28)	Total (n=79)	p-value
Treatment, n (%)	EPO	23 (45.1)	16 (57.1)	39 (49.4)	
	Saline	28 (54.9)	12 (42.9)	40 (50.6)	0.43
Age in years, n (%)	20-35	22 (43.1)	5 (17.9)	27 (34.2)	
	35-50	17 (33.3)	12 (42.9)	29 (36.7)	
	50-70	12 (23.5)	11 (39.3)	23 (29.1)	0.07
Gender, n (%)	Male	12 (23.5)	15 (53.6)	27 (34.2)	
	Female	39 (76.5)	13 (46.4)	52 (65.8)	0.01
Diagnosis, n (%)	Unipolar	22 (43.1)	15 (53.6)	37 (46.8)	
	Bipolar	29 (56.9)	13 (46.4)	42 (53.2)	0.51
Years of education, n (%)	>=15	30 (58.8)	18 (64.3)	48 (60.8)	
	<15	21 (41.2)	10 (35.7)	31 (39.2)	0.81
BL HDRS-17, n (%)	Complete remission	10 (19.6)	3 (10.7)	13 (16.5)	
	Partial remission	18 (35.3)	11 (39.3)	29 (36.7)	
	Symptomatic	23 (45.1)	14 (50.0)	37 (46.8)	0.60
Years of illness, n (%)	0-10	12 (23.5)	6 (21.4)	18 (22.8)	
	11-20	21 (41.2)	10 (35.7)	31 (39.2)	

Variable	Unit	Normal baseline memory (n=51)	Baseline memory dysfunction (n=28)	Total (n=79)	p-value
	21-30	12 (23.5)	5 (17.9)	17 (21.5)	
	>30	6 (11.8)	7 (25.0)	13 (16.5)	0.50
Number of mood episodes, n (%)	0-10	37 (72.5)	19 (67.9)	56 (70.9)	
	11-20	8 (15.7)	8 (28.6)	16 (20.3)	
	>20	6 (11.8)	1 (3.6)	7 (8.9)	0.23

Abbreviations: BL: baseline; CI: confidence interval; EPO: erythropoietin; HDRS-17: Hamilton Depression Rating Scale 17-items; n: number.

Supplementary eTable 2. **Likelihood of clinically relevant memory improvement in EPO and saline groups.** Using all data (EPO and saline), objective memory dysfunction and subjective cognitive complaints at baseline were both associated with increased chances of treatment efficacy on memory in EPO-treated patients (p=0.003 and p=0.004, respectively). The effect of baseline RAVLT on chances of clinically relevant memory improvement was significantly *different* between patients treated with EPO and patients in the saline control arm (EPO: OR=34.1, saline: OR=1.80; likelihood ratio test: p=0.04). In contrast, the effect of higher baseline CPFQ on chances of clinically relevant memory improvement was *not* significantly different between EPO and saline treated patients (EPO: OR=1.62, saline: OR=1.39; likelihood ratio test: p=0.45).

Variable	Units	Odds Ratio	95% CI	p-value
Objective memory dysfunction				
Treatment (EPO): RAVLT_baseline (<=43 vs >43)		34.06	[3.32 - 349.10]	0.003*
Treatment (Saline): RAVLT_baseline (<=43 vs >43)		1.80	[0.21 - 15.27]	0.59
Subjective cognitive complaints				
Treatment (EPO): CPFQ		1.62	[1.17 - 2.24]	0.004*
Treatment (Saline): CPFQ		1.39	[0.98 - 1.96]	0.06

Abbreviations: CI: confidence interval; CPFQ: Cognitive and Physical Functioning Questionnaire; EPO: erythropoietin; RAVLT: Rey Auditory Verbal Learning Test.